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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/597,112

06/20/2000

Evert Basch

99-959

5951

32127

7590

12/08/2005

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EXAMINER

GHULAMALI, QUTBUDDIN

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

09/597,112

Examiner

Qutub Ghulamali

Applicant(s)

BASCH ET AL.

Art Unit

2637

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/28/2004.
2. ☒ The allowed claim(s) is/are 4-6, and 8-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

CPG.  
12/6/05

  
**JAY K. PATEL**  
**SUPERVISORY PATENT EXAMINER**

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael B. Stewart, Esq. on 1/06/2005.

The application has been amended as follows:

2. Claims 1-3, 7 have been cancelled without traverse.
3. Claims 4 and 8 have been amended. See the attached sheets regarding amended claims 4 and 8.

### ***Allowable Subject Matter***

4. Claims 4-6, 8-10, 11-18 allowed.

### **Reasons for Allowance**

5. The following is an examiner's statement of reasons for allowance:

Regarding claims 4, 8, 13 and 16, the prior art of record in combination with other claimed limitations considered as a whole, neither teaches nor suggests the overall combination

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of a method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising: said substeps of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet based on said calculated mean jitter value;

Such limitations, as recited in claims 4, 8, 13 and 16, are neither anticipated nor rendered obvious by the art of record.

With reference to claim 11, the prior art of record in combination with other claimed limitations considered as a whole, neither teaches nor suggests the overall combination of a method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:

periodically receiving data packets with a nominal period:

detecting a clock-stamp reference value in a first reference data packet;

calculating a jitter value of each data packet received subsequent to said first reference data packet until a second reference data packet having a clock-stamp reference value is detected;

determining a sample mean jitter from said jitter values;

establishing a corrected theoretical arrival time for said second reference data packet;

estimating the jitter of said second reference data packet; and

adjusting said clock-stamp reference value of said second reference data packet.

Such limitations, as recited in claim 11 is neither anticipated nor rendered obvious by the art of record.

Regarding claim 12, the prior art of record in combination with other claimed limitations considered as a whole, neither teaches nor suggests the overall combination of an MPEG-2 and MPEG-4 transmission network comprising: a source device that transmits MPEG-2 or MPEG-4 data packets with a nominal period;  
a destination device that receives said data packets; and  
an electronic communication channel having a non-constant delay period that is coupled between said source device and said destination device to receive said data packets from said source device and provide said data packets to said destination device;  
said destination device comprising an electronic controller that calculates a mean jitter value for a sample of said data packets, estimates a jitter value for a subsequent reference data packet outside of said sample, and adjusts a clock-stamp reference value of said subsequent reference data packet based on said estimated jitter value.

Such limitations, as recited in claim 12 is neither anticipated nor rendered obvious by the art of record

Claims 5, 6, 9, 10, 14, 15, 17 and 18 are allowed by virtue of their dependency to claims highlighted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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*Conclusion*

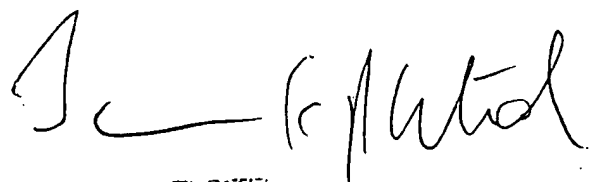
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014.

The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Qutub Ghulamali.  
January 5, 2005.

  
JAYANTI PATEL  
SUPERVISORY PATENT EXAMINER

**ATTACHMENT**

Amended claims 4 and 8 as follows:

-- 4. (Currently Amended) A method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:

estimating a network system jitter associated with reference data packets carrying clock-stamped reference values, including calculating a mean jitter value associated with arrival times of a sample of data packets;

adjusting said clock-stamped reference values based on said estimated network system jitter;

wherein said adjusting step comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet based on said mean jitter value;

adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet;

wherein said substeps of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet based on said calculated mean jitter value;

wherein said adjusting step further comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet; and

adjusting said clock-stamped reference-value-of said subsequent reference data packet based on said estimated jitter value associated with said subsequent. reference data packet.

8. (Currently Amended) A method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPE-4 data packets, comprising the steps of:

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estimating a network system jitter associated with reference data packets carrying clock-stamped reference values, including calculating a mean jitter value associated with arrival times of a sample of data packets;

adjusting said clock-stamped reference values based on, said estimated network system jitter;

wherein said adjusting step comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet;

adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet; and

wherein said substeps of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet.--



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1 - 3 (Canceled)

4. (Currently Amended) ~~The method of claim 3,~~ A method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:  
estimating a network system jitter associated with reference data packets carrying clock-stamped reference values, including calculating a mean jitter value associated with arrival times of a sample of data packets;  
adjusting said clock-stamped reference values based on said estimated network system jitter;  
wherein said adjusting step comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet based on said mean jitter value;  
adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet;  
wherein said [step] substeps of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet based [upon] on said calculated mean jitter value[.];  
wherein said adjusting step further comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet; and  
adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet.

5. (Original) The method of claim 4, wherein said calculation of a jitter value associated with a subsequent reference data packet is based upon said corrected theoretical arrival time and an actual arrival time of said subsequent reference data packet.

6. (Original) The method of claim 5, wherein said adjusting step further comprises the substep of translating said jitter value associated with said subsequent reference data packet to a corresponding number of clock ticks.

7. (Canceled)

8. (Currently Amended) ~~The method of claim 7,~~ A method of compensating for non-

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constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:  
estimating a network system jitter associated with reference data packets carrying clock-stamped reference values, including calculating a mean jitter value associated with arrival times of a sample of data packets;  
adjusting said clock-stamped reference values based on said estimated network system jitter;  
wherein said adjusting step comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet;  
adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet; and  
wherein said [step] substeps of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet.

9. (Original) The method of claim 8, wherein said calculation of a jitter value associated with a subsequent reference data packet is based upon said corrected theoretical arrival time and an actual arrival time of said subsequent reference data packet.

10. (Original) The method of claim 9, wherein said adjusting step further comprises the substep of translating said jitter value associated with said subsequent reference data packet to a corresponding number of clock ticks.

11. (Original) A method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:  
periodically receiving data packets with a nominal period;  
detecting a clock-stamp reference value in a first reference data packet;  
calculating a jitter value of each data packet received subsequent to said first reference data packet until a second reference data packet having a clock-stamp reference value is detected;  
determining a sample mean jitter from said jitter values;  
establishing a corrected theoretical arrival time for said second reference data packet;  
estimating the jitter of said second reference data packet; and  
adjusting said clock-stamp reference value of said second reference data packet.

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12. (Previously Presented) An MPEG-2 and MPEG-4 transmission network, comprising:  
a source device that transmits MPEG-2 or MPEG-4 data packets with a nominal period;  
a destination device that receives said data packets; and  
an electronic communication channel having a non-constant delay period that is coupled  
between said source device and said destination device to receive said data packets from said  
source device and provide said data packets to said destination device;  
said destination device comprising an electronic controller that calculates a mean jitter value for  
a sample of said data packets, estimates a jitter value for a subsequent reference data packet  
outside of said sample, and adjusts a clock-stamp reference value of said subsequent reference  
data packet based on said estimated jitter value.

13. (Previously Presented) A method of compensating for non-constant delay times of a  
network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of:  
estimating a network system jitter associated with reference data packets carrying clock-stamped  
reference values, including calculating a mean jitter value associated with a sample of data  
packets; and  
adjusting said clock-stamped reference values based on said estimated network system jitter;  
wherein said adjusting step comprises the substeps of calculating an estimated jitter value  
associated with a subsequent reference data packet based on said mean jitter value; and adjusting  
said clock-stamped reference value of said subsequent reference data packet based on said  
estimated jitter value associated with said subsequent reference data packet;  
wherein said step of calculating an estimated jitter value associated with a subsequent reference  
data packet comprises the substep of calculating a corrected theoretical arrival time of a  
subsequent reference data packet based upon said calculated mean jitter value.

14. (Previously Presented) The method of claim 13, wherein said calculation of a jitter value  
associated with a subsequent reference data packet is based upon said corrected theoretical  
arrival time and an actual arrival time of said subsequent reference data packet.

15. (Previously Presented) The method of claim 14, wherein said adjusting step further  
comprises the substep of translating said jitter value associated with said subsequent reference

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data packet to a corresponding number of clock ticks.

16. (Previously Presented) A method of compensating for non-constant delay times of a network transmitting MPEG-2 and MPEG-4 data packets, comprising the steps of: estimating a network system jitter associated with reference data packets carrying clock-stamped reference values, including calculating a mean jitter value associated with a sample of data packets; and adjusting said clock-stamped reference values based on said estimated network system jitter; wherein said adjusting step comprises the substeps of calculating an estimated jitter value associated with a subsequent reference data packet and adjusting said clock-stamped reference value of said subsequent reference data packet based on said estimated jitter value associated with said subsequent reference data packet; wherein said step of calculating an estimated jitter value associated with a subsequent reference data packet comprises the substep of calculating a corrected theoretical arrival time of a subsequent reference data packet.

17. (Previously Presented) The method of claim 16, wherein said calculation of a jitter value associated with a subsequent reference data packet is based upon said corrected theoretical arrival time and an actual arrival time of said subsequent reference data packet.

18. (Previously Presented) The method of claim 17, wherein said adjusting step further comprises the substep of translating said jitter value associated with said subsequent reference data packet to a corresponding number of clock ticks.